

102.4 - Copper Base Alloys (block and disk forms)

The SRMs with a "C" prefix are chill-cast blocks, 31 mm square and 19 mm thick; the others are wrought disks, 31 mm in diameter and 19 mm thick. Both forms have nearly identical elemental compositions.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	1107	1110	1111	1112	1113	1114	1115	1116	1117	1124	1276a	C1114	C1115	C1117
Description							Commercial Bronze Standard for Optical Emission and X-ray Spectroscopic Analysis	Commercial Bronze Standard for Optical Emission and X-ray Spectroscopic Analysis	Commercial Bronze Standard for Optical Emission and X-ray Spectroscopic Analysis	Free Cutting Brass (UNS C36000)	Cupro-Nickel (CDA 715)	Gilding Metal C (block)	Commercial Bronze A (block)	Commercial Bronze C (block)
Unit of Issue	(disk)	(disk)	(disk)	(1 disk)	(disk)	(disk)	(disk)	(disk)						

Concentration are expressed as mass fraction, in % (unless noted by an asterisk * for mg/kg).

Aluminum (Al)	0.083														
Antimony (Sb)											232.5*	0.0004			
Bismuth (Bi)											202*				
Cadmium (Cd)											65.1*	0.0002			
Chromium (Cr)											155*				
Cobalt (Co)											(14*)	0.045			
Copper (Cu)	61.183	84.59	87.14	93.38	95.03	96.45	87.96	90.37	93.01	(62.5*)	67.8	96.45	87.96	93.01	
Iron (Fe)	0.0389	0.033	0.010	0.070	0.043	0.017	0.13	0.046	0.014	0.2068	0.56	0.017	0.13	0.014	
Lead (Pb)	0.1850	0.033	0.013	0.057	0.026	0.012	0.013	0.042	0.069	3.363	0.004	0.012	0.013	0.069	
Magnesium (Mg)											0.12				
Manganese (Mn)											(9*)	1.01			
Nickel (Ni)	0.0946	0.053	0.022	0.100	0.057	0.021	0.074	0.048	0.020	0.0801	30.5	0.021	0.074	0.020	
Phosphorus (P)				0.009	0.008	0.009	0.05	0.008	0.002	224*	0.006	0.009	0.05	0.002	
Selenium (Se)											0.005				
Silver (Ag)											131*				

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Sulfur (S)											31*				
Tin (Sn)	1.066	0.051	0.019	0.12	0.064	0.027	0.10	0.044	0.021	0.3112	0.023	0.027	0.10	0.021	
Zinc (Zn)	37.396	15.20	12.81	6.30	4.80	3.47	11.73	9.44	6.87	35.19	0.038	3.47	11.73	6.87	

- Certified values are normal font
- Reference values are italicized
- Values in parentheses are for information only